

What is claimed is:

1. A gas adsorption sheet having a granular activated carbon-containing sheet, said granular activated carbon-containing sheet comprising:

a granular activated carbon having an average particle diameter of 60 to 600 μm ,

a supporting fiber for fixing the granular activated carbon in contact with it, and

an adhesive fiber which mainly contributes to shape retention.

2. The gas adsorption sheet according to claim 1, wherein the granular activated carbon-containing sheet comprises a surface layer and a back layer formed on the back of the surface layer, the surface layer containing less granular activated carbon than the back layer.

3. The gas adsorption sheet according to claim 2, wherein the granular activated carbon-containing sheet is integrally formed by wet bonding using a water-swelling fiber as the adhesive fiber.

4. The gas adsorption sheet according to claim 1, wherein an outer surface area of the supporting fiber is not more than $1 \text{ m}^2/\text{g}$, a fiber length thereof is from 3 to 20 mm and a density thereof is from 0.8 to 1.7 g/cc.

5. The gas adsorption sheet according to claim 1, wherein the granular activated carbon-containing sheet

contains the granular activated carbon in an amount of 30 to 80% by weight based on the total weight thereof.

6. The gas adsorption sheet according to claim 1, wherein the granular activated carbon-containing sheet is provided with small pores capable of substantially permeating an air in a thickness direction.

7. The gas adsorption sheet according to claim 6, wherein an average open area per one pore of the small pores is from 0.5 to 3 mm².

8. The gas adsorption sheet according to claim 6, wherein the number of the small pores is from 1 to 20 per 1 cm² of the granular activated carbon-containing sheet.

9. The gas adsorption sheet according to claim 6, wherein a porosity of the small pores is from 3 to 10%.

10. The gas adsorption sheet according to claim 1, which further comprises an air-permeable sheet in addition to the granular activated carbon-containing sheet.

11. The gas adsorption sheet according to claim 10, wherein the air-permeable sheet is laminated on the back layer of the granular activated carbon-containing sheet.

12. The gas adsorption sheet according to claim 10, wherein the air-permeable sheet comprises a non-woven fabric made of a film split type electret fiber as a main component.

13. The gas adsorption sheet according to claim 12, wherein the air-permeable sheet is further provided with a

cover sheet in the form of a non-woven fabric, woven fabric or net.

14. The gas adsorption sheet according to claim 12, wherein a packing density of the air-permeable sheet is from 0.01 to 0.20 g/cc.

15. An air-purifying filter obtained by forming a gas adsorption sheet having a granular activated carbon-containing sheet into a shape of pleats or wave, said granular activated carbon-containing sheet comprising:

a granular activated carbon having an average particle diameter of 60 to 600 μm ,

a supporting fiber for fixing the granular activated carbon in contact with it, and

an adhesive fiber which mainly contributes to shape retention.

16. An air-purifying filter obtained by forming a gas adsorption sheet having a granular activated carbon-containing sheet into a shape of pleats or wave, said granular activated carbon-containing sheet having small pores capable of substantially permeating an air in a thickness direction and comprising:

a granular activated carbon having an average particle diameter of 60 to 600 μm ,

a supporting fiber for fixing the granular activated carbon in contact with it, and

an adhesive fiber which mainly contributes to shape retention.

17. An air-purifying filter obtained by forming a gas adsorption sheet having a granular activated carbon-containing sheet and an air-permeable sheet into a shape of pleats or wave, said granular activated carbon-containing sheet comprising:

a granular activated carbon having an average particle diameter of 60 to 600 μm ,

a supporting fiber for fixing the granular activated carbon in contact with it, and

an adhesive fiber which mainly contributes to shape retention.

18. An air-purifying filter obtained by forming a gas adsorption sheet having a granular activated carbon-containing sheet and an air-permeable sheet into a shape of pleats or wave, said granular activated carbon-containing sheet comprising:

a granular activated carbon having an average particle diameter of 60 to 600 μm ,

a supporting fiber for fixing the granular activated carbon in contact with it, and

an adhesive fiber which mainly contributes to shape retention,

and said air-permeable sheet being further provided with a

cover sheet in the form of a non-woven fabric, woven fabric or net.

19. The air-purifying filter according to claim 15, wherein a thickness of the filter formed is from 10 to 400 mm and a distance between crests is from 2 to 30 mm.

20. A method for producing a gas adsorption sheet, which comprises a step of forming a granular activated carbon-containing sheet, said step of forming a granular activated carbon-containing sheet comprising the steps of:

preparing an aqueous slurry containing a granular activated carbon having an average particle diameter of 60 to 600 μm , a supporting fiber and a water-swelling adhesive fiber,

spreading the aqueous slurry in a sheet-like form, and mechanically dewatering and drying the aqueous slurry spread.